

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) An integrated semiconductor memory with a memory cell, comprising:
 - a storage capacitor; and
 - a selection transistor, the selection transistor being formed at a ridge made of semiconductor material, having a first and a second source/drain region, and at least one gate layer, the ridge being arranged on an insulation layer, the first source/drain region being arranged on the insulation layer at one lateral end of the ridge, the second source/drain region being arranged on the insulation layer at another lateral end of the ridge, the ridge having two longitudinal sides and a top side, the two longitudinal sides of the ridge and the top side of the ridge being covered with a layer ~~sequence~~ stack, the layer ~~sequence~~ stack including a gate dielectric and a gate electrode.
2. (currently amended) The semiconductor memory as claimed in claim 1, wherein the storage capacitor is a trench capacitor, the trench capacitor having an inner capacitor electrode and an outer capacitor electrode, the inner capacitor electrode being isolated from the outer capacitor electrode by a capacitor dielectric, the trench capacitor being disposed below the insulation layer, the capacitor dielectric extending ~~as far as~~ to the bottom of the storage capacitor.

3. (currently amended) The semiconductor memory as claimed in claim 2, wherein the inner capacitor electrode of the storage capacitor extends ~~as far as a lower~~ to a bottom side of the insulation layer and is connected by a surface contact to the first source/drain region of the selection transistor.

4. (previously presented) The semiconductor memory as claimed in claim 3, wherein a top side of the surface contact for the inner capacitor electrode is arranged below a level of the top side of the ridge and is electrically insulated from a word line passing the storage capacitor by an insulating upper filling structure.

5. (currently amended) The semiconductor memory as claimed in claim 2, wherein the inner capacitor electrode of the storage capacitor extends ~~as far as a lower~~ to a bottom side of the insulation layer and is connected by a surface contact to the first source/drain region of the selection transistor.

6. (previously presented) The semiconductor memory as claimed in claim 5, wherein a top side of the surface contact for the inner capacitor electrode is arranged below a level of the top side of the ridge and is electrically insulated from a word line passing the storage capacitor by an insulating upper filling structure.

7. (previously presented) The semiconductor memory as claimed in claim 1, wherein a doped semiconductor substrate is below the insulation layer.

8. (previously presented) The semiconductor memory as claimed in claim 2, wherein a doped semiconductor substrate is disposed below the insulation layer.

9. (currently amended) The semiconductor memory as claimed in claim 1, wherein the second source/drain region has, in a longitudinal direction of the ridge, the same dimension as a bottom side of a spacer of a word line covering the ridge, and wherein the second source/drain region is connected to a bit line contact on an end ~~side remote from the ridge of the ridge which is remote from the capacitor.~~

10. (currently amended) The semiconductor memory as claimed in claim 9, wherein a bit line is arranged above the ridge, the bit line running parallel to a longitudinal direction of the ridge and being connected to the second source/drain region.

11. (currently amended) The semiconductor memory as claimed in claim 1, wherein a bit line is arranged above the ridge, the bit line running parallel to a longitudinal direction of the ridge and being connected to the second source/drain region.

12. (previously presented) The semiconductor memory as claimed in claim 1, wherein a word line runs perpendicular to a longitudinal direction of the, the word line covering the gate dielectric on both longitudinal sides and on the top side of the ridge.

13. (currently amended) The semiconductor memory as claimed in claim 1, wherein the semiconductor memory has a plurality of memory cells having selection transistors

formed at ridges, a bit line contact is arranged adjacent to a first predetermined crossover point between a bit line and a word line, and a word line passes above a storage capacitor at a second predetermined crossover points.

14. (original) The semiconductor memory as claimed in claim 13, wherein the first predetermined crossover points are every second crossover point.

15. (original) The semiconductor memory as claimed in claim 14, wherein the second predetermined crossover points are the remaining crossover points.

16. (original) The semiconductor memory as claimed in claim 13, wherein the second predetermined crossover points are the remaining crossover points.

17. (currently amended) The semiconductor memory as claimed in claim 1, wherein the semiconductor memory has a plurality of memory cells with selection transistors formed at ridges, a bit line contact is arranged adjacent to a first predetermined crossover point between a bit line and a word line, and a word line passes below a storage capacitor at a second predetermined crossover points.

18. (original) The semiconductor memory as claimed in claim 1, wherein the integrated semiconductor memory is a dynamic read-write memory.